





Safety data sheet according to GHS

1. Identification

Identification of the Substance or mixture	Matzyme® BIO-F liquid
Recommended use of the product and restrictions on use	Bio-finishing agent. For Industrial use only.
Manufacturer/Supplier's details	Matex Bangladesh Limited Head Office : Biman Bhaban, 5 th Floor, 100 Motijheel C/A, Dhaka – 1000, Bangladesh Tel # 88-02-9562383, Fax # 88-02-9562387 Factory : East Chandora, Shafipur, Kaliakoir, Gazipur, Bangladesh. Tel & Fax # 88 – 06822 – 51166, Mobile # 01711 – 684530 e-mail : researchdevelopment@matexbd.com web: www.matexbd.com
Emergency Phone number	880-6822-51166 ; Mobile # 01713425868

2. Hazard Identification

GHS Classification	
Physical hazards	None
Health hazards	Acute Toxicity – Category 5 Skin Corrosion/irritant – Category 3 Serious eye damage/eye irritation – Category 2B
Environmental hazards	Hazardous to the aquatic environment – Not classified as hazardous Hazardous to the ozone layer – Not classified as hazardous
GHS Label	 
Signal Word	Warning
Hazard Statements	
H316	Causes mild skin irritation
H320	Causes eye irritation
H303	May be harmful if swallowed
H313	May be harmful in contact with skin
H333	May be harmful if inhaled
Precautionary Statements	
Prevention	
P264	Wash ...thoroughly after handling.
Response	
P332 + P337 + P313 P304 + P312 P305 + P351 + P338	If skin irritation occurs/eye irritation persists : Get medical advice/attention. IF INHALED : Call a POISON CENTER or doctor/physician if you feel unwell. IF IN EYES : Rinse cautiously with water for several minutes. Remove contact lenses, if



	present and easy to do. Continue rinsing.
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3. Composition/information on ingredients

Cellulase enzyme	Ingredients	CAS No.	Concentration
	Cellulase (fungal)	9012-54-8	Proprietary
	Sorbitol	50-70-4	Proprietary

4. First Aid Measures

Skin Contact	If skin irritation occurs, get medical advice/attention.
Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.
Inhalation	Call a POISON CENTER or doctor/physician if you feel unwell.
Ingestion	If the person is conscious, rinse mouth with water. Do not induce vomiting unless directed to do so by a physician.

5. Fire Fighting Measures

Extinguishing media	Foam, carbon dioxide, dry powder, water spray/fog.
Special exposure hazards	None
Special protective equipment for firefighters	As for fires involving chemicals; chemical protection suit, suitable gloves and boots, and self contained breathing apparatus.

6. Accidental release measures

Personal precautions	Use personal protective equipment
Environmental precautions	Do not discharge into drains or rivers.
Methods for cleaning up	Soak up with inert adsorbent material. Transfer into a suitable container (labelled salvage) for disposal by an appropriate method.

7. Handling and storage

Precautions for safe handling	Do not eat, drink or smoke while handling the product. Wash hands after use.
Conditions for safe storage	Store in a cool, dry & ventilated area away from the sources of heat or ignition.
Shelf Life	6 months.

8. Exposure controls/personal protection

Control parameters	Ensure adequate ventilation, especially in confined areas.
Appropriate engineering controls	Use local exhaust ventilation as needed.
Individual protection measures (including PPE):	
Eye protection	Safety goggles.
Skin protection	Protective clothing.
Hand protection	Protective gloves.
Respiratory protection	Not required for properly ventilated areas.



9. Physical and chemical properties

Appearance	Amber color liquid
Odor	Fermented odor
pH (10% solution)	ca.5.0
Melting point/Freezing point	Not determined
Boiling point/range	ca.90-100 °C
Flash point	Not available
Evaporation Rate	Not available
Flammability (solid/gas)	Not available
Explosive limits	Not available
Vapour pressure	Not volatile
Vapour density	Not available
Relative density	ca.1.075 g/ml
Solubility(ies)	Soluble in water
Partition coefficient : n-octanol/water	Not available
Auto ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not applicable

10. Stability and reactivity

Reactivity	No reactivity hazards.
Stability	Stable at room temperatures.
Possibility of hazardous reactions	None known
Conditions to avoid	Keep away from heat.
Incompatible materials	None anticipated
Hazard decomposition products	None anticipated

11. Toxicological information

This product is not tested. The following assessment is based on information of major ingredients.	
Acute toxicity	Oral/Rat LD50 > 5000 mg/kg
Skin corrosion/irritation	Not expected to be dermal sensitizer.
Serious eye damage/irritation	Not expected to be an irritant
Respiratory or skin sensitization	Data is not available
Germ cell mutagenicity	No genetic effects were observed in standard test using bacterial and animal cells.
Carcinogenicity	Not classified as carcinogen by IARC, OSHA or NTP.
Reproductive toxicity	Not expected to produce reproductive or developmental toxicity.
STOT-single exposure	Data is not available
STOT-repeated exposure	Data is not available
Aspiration hazard	Data is not available

12. Ecological information

This product is not tested. The following assessment is based on information of major ingredients.
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Toxicity	<u>Toxicity to fish</u> - Zebra fish LC50 (96h) : 330 mg/l <u>Toxicity to algae</u> – Selesnatrum capricornutum LC50 (72h) : 1033 mg/l <u>Toxicity to invertebrates</u> – Daphnia magna NOEC (48h) : 1064 mg/l
Persistence & degradability	92% biodegradable (more than 70% in 6d) as per data from similar fungal cellulase.
Bioaccumulative potential	No data available
Mobility in soil	Readily degradable
Other adverse effects	None known

13. Disposal considerations

Disposal methods	Dispose of contents/container in accordance with local regulation.
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14. Transport information

UN Number	Not applicable
UN Proper Shipping Name	Not applicable
Transport hazard classes	Not applicable
Packing group, if applicable	Not applicable
Environmental hazards	No environmental hazards
Special precautions for user	None
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable

15. Regulatory Information

Safety, health and environmental regulations	None
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16. Other information

Date of preparation	24/04/2010
Revision No.	01
Reason for revision	Updated as per GHS Standard Format
All ingredients are compliant with the requirements of European Directive on RoHS (Restriction of Hazardous Substances)	
Matzyme[®] is a registered trade name of Matex Bangladesh Limited	

The information, data and recommendations stated herein are based upon the data of ingredients available to us and are considered to be reliable. However, it is the users responsibility to satisfy himself, by preliminary tests or otherwise, the suitability of such information for his own particular purpose, including mixing with other products. The purpose of this Material safety data sheet is to describe the material in terms of physical, health & environmental hazards. Matex Bangladesh Limited makes no warranties, either expressed or implied, with respect thereto and assumes no obligation/liability for the hazards connected with the use or handling of the material.